THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXVI. THURSDAY, APRIL 25, 1867. No. 12.

EXCISION OF JOINTS FOR TRAUMATIC CAUSE.

[Read before the Norfolk (Mass.) District Medical Society, January 16th, 1867, and communicated for the Boston Medical and Surgical Journal.]

By Z. B. ADAMS, M.D., of Roxbury.

THE very complete and able monograph of Dr. Hodges,* which received the Boylston Prize for 1861, prepared the way for the vast accession to our knowledge of the subject of excision of joints furnished by the published reports of the surgery of our late volunteer armies. These reports are not yet complete, but they are nevertheless sufficient to establish certain points of great practical importance. The valuable work of Dr. Hodges enables us at a single glance to see precisely what was known and what had been done in this branch of surgery previous to 1861, and to compare it with what has been done in this country since. So far as its influence extended, this carefully written monograph must have inclined the profession to regard these operations with favor, and may have directed the practice of our army surgeons. However that may be, the number of cases of excision of joints for traumatic cause during our late war was by many times greater than that of all cases on record previously, and considerably greater than that of all recorded cases of excision of joints for whatever cause. No one surgical procedure practised in our armies has had so much light thrown upon it as this; no one can be compared to it in the importance it bears in encouraging us in the path of true conservative surgery.

From the account of the early history of these operations given in Dr. Hodges's paper, it appears that the practice of excision of joints for injury or disease is probably of recent origin, dating no farther back than the latter part of the last century, and that it has been recognized as a legitimate resource of surgery only within a few years. The first example in this country was a case of excision of the shoulder-joint, successfully performed by Dr. William Ingalls, of Boston, in the winter of 1812–13, for gun-shot wound.

Circular No. 6, War Department, Surgeon-General's Office, No-

* Excision of Joints. By Richard M. Hodges, M.D. Boston. 1861.

vember, 1865,* contains a summary of the surgery of the war during a period of about three years, or three quarters of the time. In this report is a very complete account, in tabular form, of thirty-two cases of excision of the head of the femur, four of which recovered. Previous to 1861, there had been twelve cases for gun-shot, and one recovery. This report contains five hundred and seventy-five (575) cases of excision of the head of the humerus. Previously, there were ninety-six (96) for traumatic cause, and fifty (50) for disease.† Of excision of the elbow there are three hundred and fifteen (315). Before 1861 there were but sixty (60) cases on record for injury. These numbers include both partial and complete, primary and secondary, excisions.

It is to be regretted that we are not yet in possession of certain statistical facts relating to these operations of higher importance, perhaps, than their numbers and rates of mortality. The very able and thorough manner in which the work has been thus far prosecuted at the Surgeon-General's Department, is a proof that much light will yet be thrown upon the obscure points, and that, from data furnished by this country alone in the short space of four years, will be deduced for the first time an estimate of the value of these operations, very nearly approximate to the truth. One point of special importance has yet to be elucidated, and that is to know the ultimate results, and to compare them with those of amputation and with those where there has been no operative interference. Another point of great importance, especially in excisions of the elbow and other ginglymoid joints, is the question of the relative dangers of partial and complete excisions, and to determine the precise value of the fact that in these joints the former are more unsuccessful than the latter. "The returns for three-fourths of the entire period give 315 cases of excision of the elbow, and the results are ascertained in 286 cases. In 16, amputation of the arm became necessary; 62 terminated fatally, or 21·67 per cent., which is a mortality a fraction greater than that resulting from amputation of the arm. This result is altogether opposed to the Schleswick-Holstein and Crimean experience, and will doubtless be modified when the statistics are completed. It may be ascribed partly to the fact that the returns for the earlier period of the war include quite a large proportion of partial excisions, which are far more hazardous than complete removal of the articular surfaces."—(Circular No. 6.) It seems, therefore, to be admitted that excisions of the elbow, if complete, are less fatal than amputations of the arm. But were this not so, the exceedingly happy results of this well-established operation‡ would

* Reports on the Extent and Nature of the Materials available for the preparation of a Medical and Surgical History of the Rebellion. Philadelphia. J. B. Lippincott & Co.

† Taken from Dr. Hodges, who seems to have thoroughly sifted the bibliography of the subject.

‡ "A single illustrative case" is given in Circular No. 6. A soldier, aged 21, was wounded by a musket ball, "which shattered the inner condyle of the right humerus and the olecra-

fully justify its performance in all such cases of injury to this joint as would otherwise call for amputation above the elbow; for, in deciding between excision and amputation in cases of joint-injury, there is, besides the relative fatality, a question of scarcely less importance, and that is, how far the value of the member which it is sought to preserve may be impaired by excision; or in case of amputation, to what extent the loss of a limb may be supplied from the resources of human ingenuity. But, as Dr. Hodges observes, the question is not always the easy one between excision and amputation, but often the more difficult one between excision and the chances of expectant treatment. This is sometimes exceedingly perplexing, nor is it easy to define the precise grounds upon which to found a decision. This point, also, will doubtless be elucidated in a great degree, when the Reports of the Surgeon-General's Office are completed.

Of excisions of the wrist there are thirty-five (35) cases, and the mortality rate is about 8 per cent. less than that of amputation of the forearm, and perhaps a little greater than that of amputation at the wrist. But the important point of the amount of mobility and usefulness of the hand after this excision, is not yet clearly ascertained.

With regard to the lower extremity—The mortality from amputation at the hip-joint for gun-shot wound is found to be 88·03 per cent. for all recorded cases (103); that for excision in like injuries in our army, 87·5; whilst the results of expectant treatment, so far as they appear upon the records, are yet more disastrous.

Prior to the late war, there were but seven (7) cases recorded of excision of the knee-joint for gun-shot, with two recoveries. This operation was performed eleven (11) times in our army, with two recoveries, also. The mortality, then, is 77·78, which shows that this operation is one of the most hazardous in army surgery, being perhaps more fatal than amputation at the upper third of the thigh.

The results of excision of the ankle-joint are also very discouraging. Our army returns thus far show 18 terminated cases, of which 12 recovered and 6 died. "The judicious use of the gouge and bone-forceps is admissible in gun-shot wounds of the ankle-joint; but formal excisions are rarely successful."

From the foregoing facts can be deduced the following maxim:—When dealing with severe injury of any of the joints of the upper extremity, the surgeon should never overlook the fact that the best mechanical appliances which the ingenuity of man has yet devised, make a quite ineffectual substitute for the wonderful mechanism of

non process of the ulna." Twenty-three days after, "Surgeon Charles Page U.S.A. excised the elbow-joint, employing the H-shaped incision. Two and a half inches of the lower extremity of the humerus, an inch of the upper extremity of the ulna, and a small portion of the head of the radius were removed." Two years after, the soldier re-enlisted. Surgeon Dougherty, Medical Director of the Corps, who examined him, says:—"The man went through the manual before me, and stated his readiness to do all the duties of a soldier. The degree of motion was perhaps one third of the normal amount."

the human forearm and hand, even when motion is impaired or partial, while it is an established fact that the dangers of excision are, on the whole, inferior to those of amputation.* Whereas, in case of compound dislocation or fracture of one of the joints of the lower extremity, it should be remembered that excision is attended with more danger than amputation; that the various forms of artificial leg serve both the purposes of support and locomotion; and that a leg from which a joint has been excised is often worse than useless.

What has been learned concerning excision of the shoulder-joint for injury? Dr. Hodges collected 96 cases for traumatic cause. In our army there were 575 cases, or six times as many.† Of the previous cases, 53 were known to be primary, and 34 secondary, excisions. In the former the fatal results were 30·18 per cent., and in the latter 17·64, being 12.54 per cent. in favor of secondary operations. Dr. Hodges draws the inference from these numbers that primary operations are more dangerous than secondary, and further adduces the authority of Esmarch and others in support of this opinion. He also states that this was a conviction established in his own mind from a consideration of the many circumstances which seem to favor secondary operations in these cases. In point of fact the reverse is shown to be true from our hospital reports, by an accumulation of evidence so great as to put out of the question all previous statistics on the subject. In 252 primary operations the percentage is 23·3 fatal, and in 323 secondary ones the ratio is 38·59, being 15·29 per cent. in favor of primary excision of the shoulder-joint for gun-shot. It would seem that this must be admitted to be very near the truth, when we consider under what adverse circumstances many of these primary operations must have been performed, while the secondary ones were probably most often practised in comfortable hospitals, and "with all the appliances and means to boot" to guaranty success. The surgeons who performed the secondary operations we may assume to have been on the whole more skilful, or at least, primary operations, being most frequently practised on or near the field of battle, or among the distracting and pressing emergencies of crowded field hospitals during sanguinary and dubious engagements, were necessarily often performed in a hasty and unskilful manner. Not only this, but, as Dr. Hodges remarks, "as a rule it is the less grave injuries, those which hold out some hope of success under expectant treatment, that are reserved for secondary operations, while time, and the establishment of suppuration, enable the surgeon to define the extent of the lesion more exactly than can ordinarily be done at the moment of receiving the injury, thus securing a more thorough and perfect removal of all diseased or injured

* The rate of mortality in amputation at the shoulder (according to Malgaigne 50 per cent.) is, in our army, 39·24 per cent.; that in excisions of the head of the humerus, primary and secondary, 32·48, or about 7 per cent. less.

† The whole number of amputations at the shoulder in our army was 453, or 117 less than the number of excisions thus far reported. This is highly creditable.

structures." To these considerations must be added the fact, that, after secondary operations, the patient is rarely subjected to exposure to the elements, or to dangers, fatigues and shocks, from transportation or other causes, to all of which soldiers operated on at the field of battle are liable. It may be quite safely asserted that primary excisions of the shoulder-joint for gun-shot are much less fatal than secondary ones.

Excision of the head of the humerus is the operation appropriate to all serious injuries of the upper part of that bone, unaccompanied by damage to the great vessels or nerves, or by very extensive destruction of the soft parts. Mere splitting of the shaft longitudinally does not necessitate amputation, which may, however, be proper in case the bone is splintered or comminuted for more than half its length. Excision, and not amputation (with the partial exceptions above noted), should be resorted to in all severe compound injuries of the upper part of the humerus, not lesions of the head of that bone alone, but in those occurring about the surgical neck, and accompanied with longitudinal splitting, even though the epiphysis, as is frequently the case, be not implicated in the fracture. It is found that no good purpose is served by excising a portion of the shaft and leaving the head, while excellent results have followed excision of the head, with five or even six inches of the shaft.

In Circular No. 6 is cited the case of private Jno. F. Reardon, 6th N. Y. Cavalry, in whom the head and upper third of the shaft of the humerus were excised on the day following the receipt of the wound, and a piece of shell four inches long and one broad extracted from beneath the deltoid muscle. Two years after the operation, he could move the arm backwards and forwards, and carry his hand to his mouth, while motion in the forearm and hand was unimpaired. This is given as a typical case.

Gun-shot wounds of the upper end of the humerus are often complicated with injuries to the coracoid and acromion processes, to the glenoid cavity, to the clavicle, or to the body or neck of the scapula. Ordinarily, decapitation of the humerus is alone required. Fragments of the scapula may be removed or left to exfoliate without danger, although the suppuration is thereby increased and recovery protracted. Complete excisions have, however, been successfully practised, and large portions of the clavicle and scapula have been removed, together with the upper part of the humerus. On the other hand, partial excisions have been found to succeed remarkably well in the shoulder-joint, and we have good authority for the opinion that the glenoid cavity had better be let alone, and not interfered with by sawing, cutting or gouging. Where only a portion of the head is removed instead of the whole, motion, it is said, is apt to be more restricted after recovery. Fatal or unfortunate results of partial

excisions seem to be less frequent in the shoulder-joint than in the ginglymoid.

In excisions for traumatic cause, no precise form of operation can be laid down, and the procedure must vary according to the extent and nature of the lesion and the condition of the soft parts. It is certain that, in a very large number of cases, the extent of the lesion cannot be accurately defined previously to the operation. The rule should therefore be to begin the operation as if it were exploratory, destined to be completed or amputation substituted, according to the nature of the case, the first incisions being such as would apply in case of amputation.

Great care should be taken to cover the soft parts while sawing or cutting the bones, as undoubtedly suppuration is often prolonged, and recovery retarded, by the presence of dust, shavings, or splinters of bone, in the wound. It is unnecessary to do more than snip off the sharp points and irregularities of the shaft, and by no means is it essential to follow a fissure far down for the sake of cutting only through sound bone.

The success of these operations, especially primary ones, in military practice, would seem to show that the after-treatment is not very important. The parts should be guarded against irritation or great displacement. It has been recommended to put a pad in the axilla to prevent the upper part of the bone from being drawn inwards. It is doubtful if this is of the slightest use. Rest upon a pillow for a few days, and gentle compression to prevent burrowing afterwards, appear to be all that is required. The limb should, of course, be supported by a sling. Passive motion may be begun early, although anchylosis is little to be feared. The chances of this latter accident are said to be greater in rapid than in slow recoveries from excisions of joints; but this opinion, like that of Esmarch that excisions of the right side are more successful than those of the left, will very likely prove to be unfounded*

The following passage from the monograph of Dr. Hodges is peculiarly applicable to-day:—"At the present time the value of a limb from which the joint has been excised, the comparative dangers of the operation, the joints to which experience shows it to be properly applicable, and the conditions of disease or injury under which it may be performed, as well as the extent and manner of operative interference, can all be estimated better than ever before." Taking into account the dangers of primary excision for traumatic cause as compared with those of the amputation which it replaces, and looking at excision of joints in the light of a method of conservative surgery, having regard to the ultimate value and usefulness of the limbs which it seeks to preserve, the following conclusions may be drawn from what has been said above.

Excision of the shoulder-joint is greatly preferable to amputation,

* This opinion of Esmarch is not sustained by the statistics of our army surgery.

inasmuch as it lessens the risk to the patient, and leaves him with a useful forearm and hand. The excision should be primary. The same is true to a less extent of the elbow, and still less of the wrist.

Whenever operative interference is required for injuries of these joints, especially for gun-shot, amputation should, if possible, be made to give place to excision.

On the other hand, while excision of the head of the femur offers no advantages over amputation, the latter is to be preferred to the former in injuries of the knee- and ankle-joints, the question in these being between amputation and the chances of expectant treatment.

NOTE.—The whole number of cases of excision of the knee- and ankle-joints is perhaps too small to warrant conclusions to which may be given the significance of rules. That they are few is due to the fact that their danger is well recognized, since the opportunities for them must have been very numerous. There still remains much to be learned concerning excisions.

MEDICAL BOTANY OF NORFOLK COUNTY.

[Read before the Norfolk (Mass.) District Medical Society, January 16th, 1867, and communicated for the Boston Medical and Surgical Journal.]

By JOSIAH NOYES, M.D., of Needham.

WHEN native plants in profusion around us offer therapeutic powers well adapted to many of our cases, is it wise to reject them for foreign ones of no greater efficiency? Viewing the number, qualities and power of our native astringents, I see no need of importing a single article of this class. From native plants growing in this vicinity may be extracted all the tannin, or tannic and gallic acid needed for our practice and use in the arts, and many or most of them possess also tonic powers; and while they condense, by their styptic power, the loose tissues, give tone to the various structures, and also in the restraint of hæmorrhages have a hæmostatic power. It is in this way that the Erigerons, or fleabanes, have been supposed to act. Some plants, as the Geum, Geranium, &c., are simply astringent; some are astringent and tonic, as the Cornus, or cornels, the bark of the apple tree, maple, or acer family, and a large part of our arboreous plants. Some combine the aromatic with the astringent principle, as the Betula lenta, or black birch, Gaultheria procumbens, or partridge bush, or spicy wintergreen. Many possess also a diuretic power, as the Pyrolas, Arctostaphylos uva ursi, formerly Arbutus uva ursi, dry cranberry or bearberry; Cephalanthus occidentalis, button bush, &c. But, with regard to the diuretic effect of medicines, not a little depends on the nature, quantity and quality of the menstruum. Pure water alone, in quantity, is well known to have this effect. Many plants have the reputation of diuretics, though possessed of feeble medicinal power, as the Stellaria media, found growing in gardens and

about houses as a weed, and called chickweed; the Galium, of which there are several species found in this vicinity, and called cleavers or bed-straw, also, sometimes, "goose-grass." The species "Aparine" is the one generally used medicinally in infusion, but they all seem to possess similar powers. The G. verum is seen occasionally on the roadside, and having rather dense racemes of yellow flowers. These are sometimes used to impart a yellow color to butter and cheese. Another species—G. circæzans—has a sweet taste, hence called wild liquorice. This may be used as a demulcent in coughs and irritations of the air-passages. The G. tinctorium is more used as a red dye. So it is with a large portion of our genera and species; they combine with one common property several others. These are not in the new U. S. Pharmacopœia; but you will bear in mind that it is not my intention to confine myself, in these researches, to officinal articles, otherwise I should refer you to the revised standard.

Many plants cultivated for ornament or other purposes might be made subservient to our materia medica—such as the aconite, a handsome ornament of our gardens, yet a powerful sedative and narcotic, controlling the circulation not much less efficiently than the veratrum viride, which has for some time past acquired considerable reputation for such purposes. Its alkaloid aconite is too powerful to be carelessly used, but safe in its properly reduced dose of the fraction of a grain, although seldom used internally. The digitalis, though introduced, seems at home in our gardens, is easily cultivated, and possesses useful medicinal properties, being narcotic, sedative and anodyne. I have availed myself of its use for many years. It may not be generally known that the flowering spurge—Euphorbia corollata—so showy in our gardens, is a drastic cathartic, and may be made to take the place of colocynth, elaterium, or other imported articles. The colocynth, however, seems not to be very difficult of cultivation. The may-apple, or mandrake—Podophyllum peltatum—both a native and cultivated plant, is occasionally found in our region, is a good and safe cathartic; its alkaloid is podophyllin, which, though more powerful, has no advantage over the plant in extract or powder.

If a pungent stimulant is desired, we have it in the Arum triphyllum, as we have usually had it in botanies, but in Gray, Drisæma triphyllum, commonly called Indian turnip, or dragon-root, found in rich woods, with a peculiar flower, consisting of a spathe and spadix, the former folded over the latter in the form of a hood. The solid turnip-shaped root and a cluster of bright red berries around the base of the spadix are, in the recent state, intensely acrid, causing a severe burning and pain of the tongue, not soon forgotten, if chewed. But, by drying, it loses most of its pungency, and is then, in domestic practice, grated into some warm liquid and given as a carminative in flatulent colic, &c.

A species of Polygonum (P. hydropiper), smartweed, growing in wet places abundantly, in company, often, with other varieties of this plant, is, in its recent state, a warm or pungent stimulant, and used in cases like the preceding; and, like it, loses its pungency by drying. These, or others of their class, would supersede or be fully a substitute for the boasted "painkiller," pain annihilator, or "great medical discovery." Other more moderate and permanent stimulants are found in the Zanthoxylum fraxineum of the U. S. Pharmacopœia, or prickly ash, often seen as small shrubs on our roadsides and about our dwellings, as though in their natural *habitat*. The Liriodendron tulipifera, or tulip tree, found occasionally along the southern border of our State (and I have seen it even in our district), has similar properties; but it is sought and cultivated as an ornamental tree more than a medicine, being straight, tall and handsome, with flowers somewhat like a tulip, as carelessly viewed; hence its common name. The tree is surpassingly beautiful, the foliage rich, the leaves four-lobed in a peculiar manner, the lobes being somewhat acute, the interspaces between them having very obtuse angles. With the stimulant it combines aromatic and tonic properties. Such trees are worth cultivating.

In strong contrast with this in size, &c., is a plant, though introduced, so often seen in gardens as to seem naturalized, and deserving a passing notice—the Capsicum annuum, or Cayenne pepper, possessing a pungency well understood. This seems to enter into a large part of the nostrums of the day.

If a cathartic be wanted, we have a plenty within reach and easily obtained. The Podophyllum, before mentioned, though in its wild state rather rare, might doubtless be easily cultivated, and would afford a supply. The natural order Juglandaceæ affords some reliable plants possessed of cathartic or laxative powers, whose inner bark, in the form of powder, pill or extract, may be safely used to unload the bowels, draw off redundant bile, and, if rightly managed, obviate costiveness without injuring the tone of the stomach and bowels, especially if a little rhubarb be used in combination with it. The Juglans cinerea, or butternut, is the one commonly used for this purpose, though other species, not found in our vicinity, may possess similar properties. It is found in rich, often rocky soil, attains to considerable size, though not very tall, has pinnate leaves, leaflets and fruit beset with clammy hairs, the nut hard, harsh and rougher than any common grater, but enclosing a meat or kernel of surpassing richness. This tree is often used in dyeing. Among the cathartics, I would call your attention to a plant which, though introduced, appears well suited to our soil and climate, and as well naturalized as many of our indigenous plants; and though more cultivated for hedges and ornament than for physic, is yet as efficient for the latter purpose as many articles of our materia medica; and though rejected in the last issue of our U. S. Pharmocopœia, was in-

cluded in former ones and other Dispensatories—I mean the Rhamnus catharticus, or buckthorn—which I think may well still claim our attention. It may be used in powder, pill, extract or syrup—the last being the form in which it is commonly used, although sometimes the berry is chewed and swallowed when a cathartic or laxative is wanted. The shrub, being offensive to most animals, is safe from their depredations, as well as from the attacks of most insects.

As it is not my purpose at this time to be very formal in my remarks, I have thought best to call your attention to a number of plants rather promiscuously selected, that, in the *interim* between this and another meeting, you may subject them to your scrutiny and report your success or experience then. Some, who have had a prejudice against calomel, have sought a substitute, and thought they had found it in the buckthorn—Rhamnus catharticus, just spoken of—the mandrake, or may apple—podophyllum—the butternut extract, the Taraxacum, or dandelion, formerly the Leontodon, or Dens leonis; and, finally, last, but not least, in the tomato, a species of the Solanum, a family of narcotics, but modified by cultivation into harmless and useful nutrients. But for all these arrogant assumptions you will find no full warrant; and calomel, blue powder and blue pill must occasionally, perhaps not very often, be resorted to in the treatment of disease in some of its multifarious forms. So the lancet finds a competitor in the digitalis, veratrum viride, colchicum and other sedatives and narcotics.

As many of our drugs and medicines, especially imported ones, have latterly been very expensive, it is good economy to look about and see what therapeutical agents we have among us; and another hand, in the Boston Medical and Surgical Journal (Vol. 70), has called your attention in a measure, I trust, to this subject (Dr. Weld, of Jamaica Plain). I would not be deterred from the use of therapeutic agents of one kind or another, because eclectics, homœopathists or Thomsonians include them in their materia medica. As the bee collects honey from all plants that secrete nectar indiscriminately, so let us wisely avail ourselves of all resources within our reach, to cure or relieve sickness and suffering, and make the burden of medical attendance as light as possible. People should be advised to resort to medicine as seldom as possible, but when recourse to it must be had, the remedy should be as simple and well adapted as is practicable. In this way we may hope to lessen the amount of quackery, fostered by flaming advertisements in almost all our newspapers and periodicals, not even excepting the religious! Why may not some pill, powder, extract, syrup, or troche, compounded from our Pharmacopœia, be furnished to our stores and shops in quantity to supply them, and at a moderate price?

It cannot be expected that in a communication to be read at one meeting, and at that, Mr. President, a discussion expected and ten papers in readiness to be read, I should be able to comprise within

proper limits a very large part of my subject. But there are a few more plants to which I would call your attention at this time. In this connection I must not omit to mention a papillionaceous plant, with yellow flowers, long an inhabitant of my premises, and occasionally seen along the roadside and border of woods, which I have many times used as a substitute for the foreign senna, and which is often used in domestic practice—Cassia Marilandica, or American senna. It is a beautiful plant, with pinnate leaves, abundant and bright yellow flowers, clean and free from the depredations of insects, seldom molested by animals. Its properties are similar to its foreign co-species, and may be used where that is called for or needed. It can be given in powder, or a pill, with other substances, tincture, extract, syrup, but especially infusion or decoction, with or without salts.

In pastures with a good, rich soil, in bushy land, on the border of woods, and even along the roadside, at this season of the year, your attention will be caught by abundant clusters of bright-red berries on leafless branches—the leaves having previously fallen—and made thereby peculiarly conspicuous. This is the Prinos verticillatus, a bitter and useful tonic, with a degree of astringency. The berries, on being chewed, are very bitter and acrid, so as to leave a strong impression on the mouth and fauces. In common with cinchona, cornus, &c., it is reckoned antiperiodic as well as tonic and astringent, the berries and bark being used. Its alkaloid is Prinosine, of which the dose is half a grain.

At this season, or in the autumn, when the leaves are falling, or have fallen, leaving the branches leafless, and most other flowers have deserted us, being nipped by frost, innumerable flowers, with long, ligulate or linear yellow petals, may be seen on large shrubs—not quite trees; this is the Hamamelis Virginiana, or witch hazel, the latter term having reference to a peculiar use made of it. In times gone by, if not at present, it was supposed that minerals and water might be indicated by its use as a divining rod. But this is not the best use of it. It has tonic and astringent powers, adapting it to dysentery, looseness of the bowels, or chronic diarrhœa; or as an astringent collyrium, or in decoction or poultice to painful tumors or hæmorrhoids. It is also useful for dyeing black or blue-black, like the red maple, or acer rubrum—the most common maple among us of the native kind.

We have, too, good and efficient expectorants, viz., such as possess a degree of acrimony, like the Lobelia, Sanguinaria, the Terebinthinates, Asters, Solidagos, Polygala, some species of the Asclepias, especially the A. tuberosa, or butterfly weed, or pleurisy root, a pretty ornament for the garden or foreground of a house. The Inula helenium, or elecampane, of the natural order Compositæ, a coarse and rather tall perennial, seen growing on roadsides, &c., is too good an expectorant to be rejected, and deserves a more extensive use than

it has. The Alliaceous plants—as the onion, garlic, leek or cives, &c.—aid the lungs to rid themselves of an incumbrance to which they are subjected, and by which they are oppressed. These last, though introduced, are generally at hand, having a place in the garden. The squill, Scilla maritima, an exotic, has its place among this class of remedies and this natural order.

There are others, equally meritorious, to which I should like to call your attention if there were time; but better too little than a surfeit. A few of them are the Asarum, Aralia, Anemone, Ceanothus, Clematis, Comptonia, Coptis, Gerardia, Phytolacca, Pyrola, Prunus, Prunella, Quercus, Rubus, Rhexia, Rhodora, Rhododendron, Salix, Scutellaria, Sanicula, Solanum, Celastrus, Osmunda, Adiantum, &c.

SURGICAL CASES OCCURRING IN THE MASSACHUSETTS GENERAL HOSPITAL. SERVICE OF DR. SAMUEL CABOT.—NO. IV.

Reported by F. R. Sturgis.

[Communicated for the Boston Medical and Surgical Journal.]

Case I.—*Fracture of the Bones of the Thigh and Leg on the same Side; Recovery.*—A. P., a negro child, æt. 6, entered the Hospital December 5th, 1866, with a fracture of one hour's duration.

On examination under ether, the left leg was found fractured in two places, viz., about the middle third of the femur, and the upper third of both tibia and fibula. Both fractures were simple and not comminuted.

While under the influence of ether, a Dupuytren's splint was applied; but as it was found not to answer the indications of the case, it was, on the 7th, changed for extension by means of adhesive plaster for the femur, and side splints for both femur and tibia. The case progressed well, and on the 26th the following record was made:—"The femur and bones of the leg have united well, with quite a large callus." On the 28th, the splints were removed, and the union was found to be firm. There was no stiffness of the knee-joint whatever.

The patient was kept in bed (but without any apparatus) for prudential reasons, lest the callus should not be firm enough to bear the weight of the body. The wisdom of this was seen even while in the recumbent posture, for, on the 31st, the splints were resumed, on account of a tendency of the limb to bow outward at the points of fracture. They were retained until January 9th, 1867, when, the leg and thigh having been found united by a firm callus at the fractured points, and without any further bowing of the limb, she was discharged, well.

Remarks.—The points worthy of notice in this case are:—First, the occurrence of a double fracture in the same leg; second, the recovery without any stiffness of the knee-joint; and, thirdly, the pru-

dence and necessity of continuing the use of the apparatus for some time after the apparent firmness of the callus, more especially in children, in whom it is rapidly thrown out, and in whom deformity is often produced by attempts to use the injured part too soon.

CASE II.—*Tumor of Iliac Region; Recovery.*—A. D., native of Ireland, æt. 25, domestic, and single, entered the Hospital Dec. 12th, 1866. Patient has never been robust or in very good health. In October, 1866, she strained herself, which was followed by a swelling between the iliac and pudic regions, above Poupart's ligament, on the right side, and was attended by cramps. Saw no medical man at the time, but took some laxative pills, which moved the bowels freely. Was not at that time confined to bed.

This condition of things, viz., pain and swelling, went on until the 6th instant, when the pain increased without any known cause. On this day, the bowels were moved for the last time up to the present date. On the following day (7th), vomiting occurred, which lasted for two days, and was supposed by Dr. Putnam (her medical attendant) to have been due to the opium which she had taken. One ounce of castor oil and an enema of soap suds and water failed to produce any evacuation. The pain in the swelling was so severe as to resist the action of opiates.

At entrance, in the right side, between the iliac and pudic region, above Poupart's ligament, is seen and felt a swelling, not circumscribed, painful, and gives no fluctuation. No rectal or vaginal examination was made, on account of pain. The expression of the face was anxious, the skin cold and clammy, pulse weak and rapid, respiration tranquil, sleep and appetite disturbed by pain. She was ordered, rest in bed, and light diet, poultice to swelling, elixir opii, gtt. xl. p. r. n., and the leg was supported on a pillow.

The pain diminished from date, and on the 16th she had three or four loose dejections from the bowels without the aid of medicine, the first she has had since the 7th, and attended with severe pain. The discharge was reported by the nurse to resemble the white of egg, without fæcal odor, fæcal matter or blood.

On the 17th, had two or three discharges, looking and smelling like the albumen of an unboiled egg. Their consistence is thin, with abundant flocculi, of a light color, and not unpleasant smell. A specimen was sent to Dr. J. C. White for examination, but unfortunately, as he was absent at the time, it was spoilt before examination.

The tumor, although diminished in area, has become more prominent and circumscribed. Some resonance on percussion, noticed for the first time since entrance.

Dec. 18th.—Five dejections yesterday, two during night, attended with much pain; character, same as before. Can bear quite a firm degree of pressure. Tumor more prominent and less diffused.

21st.—Pain in bowels diminished. Number of dejections less, as

is also the daily quantity passed. Their nature unchanged. Area and prominence of swelling diminished.

25th.—As she had had no movement of the bowels for some days, she was directed to have ol. ricini, ʒ i. every three hours, till bowels moved.

26th.—Three dejections from one dose of oil (ʒ i.), with fæcal odor and look; the first since entrance. Less pain in bowels. Less dulness over tumor, with some crepitus, as of air. Appetite improving. One drachm of ol. ricini to be given again.

27th.—Ate fruit yesterday, contrary to orders, in consequence of which she suffers from pain in bowels. One dejection last night; in character as at first (albuminous). Did not sleep well.

28th.—Yesterday, after ʒ i. ol. ricini, had an attack of vomiting, the same to-day, without any apparent cause. Pain increased. One dejection.

30th.—Pain in bowels still severe. No dejection since 28th inst. Tumor of side somewhat increased in size.

Jan. 1st, 1867.—Pain in side diminished. One dejection yesterday. Percussion resonant throughout former spot of dulness.

She went on improving, and on the 9th I find the following record:—Bowels regular; discharge healthy in character, and not as before. No swelling visible. Resonance good. On the 13th, however, she reported quite severe pain in the right side, on the site of the previous swelling, unattended by any preceding chill. No alvine evacuation for two days. Appearance of side as on 9th. Was ordered to have ol. ricini, f ʒ ss.; sennæ tinct. comp., f ʒ i. M. This had the desired effect, and on the—

15th.—She was reported as doing well. No signs of swelling left. Was ordered to sit up, and to have solid food for the first time.

From this period she steadily improved, the only treatment being occasional enemata, and doses of oleum ricini for constipation of the bowels, up to February 2d, when she was discharged with the following note: Bowels regular, and discharges normal. No further swelling.

Remarks.—This case is of marked interest from the long and insidious mode of its attack, before it became sufficiently painful to confine the patient to bed. The question as to its having been a diseased ovary was set at rest by the position being too low; by the fact that abscesses of the ovary are rare in non-puerperal or pregnant women; by its presence as a diffused, and not a circumscribed tumor, and by its hardness. The discharge of matter, which came per rectum on the 17th (five days after entrance), is worthy of notice, and it is much to be regretted that it was not examined. It was undoubtedly pus (as Dr. J. C. White said when he saw it with the eye), but still not presenting the usual appearance of that fluid. In this case the only treatment was, rest, opiates, light diet, and afterwards mild laxatives.

The mode of its evacuation is the most common one taken by these abscesses, and it is worthy of notice that in this case the usual concomitants of iliac abscess, viz.: vesical tenesmus, and a sense of weight about the pelvis, were not complained of.

MENTAL TOXICOLOGY.

[Communicated, by request, for the Boston Medical and Surgical Journal.]

By JAMES H. DENNY, M.D.

MENTAL TOXICOLOGY may be defined to be that branch of psychological medicine which discusses the action of mental processes in impairing or destroying vital functions. As it is unusual to classify the deleterious influences of the mind upon the body among toxicological agents, it will be necessary to be somewhat precise in definition. Mind is complex, and can only be defined by its attributes.

Mental attributes, or processes, are those of (1) Cognition, or "the act of energy in thought * * * during which man attains to knowledge of a thing."—(LAYCOCK.) (2) Emotion, or "the phenomena of pleasure and pain." (3) Volition, or "the phenomena of desire and will."—(HAMILTON.)

The vital processes are Innervation, Circulation, and Nutrition.

A poison is defined by Dr. Taylor as "A *substance* which, when absorbed into the blood, is capable of seriously affecting health or of destroying life."

Neurotic poisons act *principally* through the cerebro-spinal nervous system, and primarily affect the vital process of innervation. They involve circulation and nutrition secondarily, according to their mode of exhibition. Giddiness, delirium, stupor, paralysis and convulsion are some of the prominent symptoms produced by neurotic poisons, of which strychnia and opium are familiar examples. The convulsive action of the cerebro-spinal nerves in chorea is similar to the effects of this class of poisons.

Irritant poisons *mainly* implicate the ganglionic system, and the vital process of circulation. Irregular pulse, cold pallid skin, nausea and purging, characterize the effects of these poisons, of which arsenic is a typical example.

The symptoms of cholera—although the cerebro-spinal nerves may be also involved—are analogous to irritant poisoning.

Having thus imperfectly glanced at the classification and effects of material poisons, I shall endeavor to show that similar symptoms may be caused by the toxical agency of the mind acting through the cerebro-spinal system as a mental neurotic poison, and through the ganglionic system as a mental irritant poison; that in both instances it is "capable of seriously affecting health, or of destroying life," and may therefore be entitled to rank with a "poisonous *substance* absorbed into the blood."

In searching for a mental neurotic poison, it will be requisite to analyze some of the attributes of mind, even at the risk of seeming pedantry.

Among other sub-divisions of the cognitive faculty, Sir William Hamilton includes the special faculty termed the Presentative, or that of external perception, through the medium of which there is "a presentation of the order of nature to the consciousness through the senses." Knowledge results. Another special faculty is the Representative, or Imagination. "It is the power which the mind has of holding up vividly before itself the ideas which it has recalled into consciousness."—(LAYCOCK.) Finally, the power which the mind possesses of modifying the knowledge which it receives, in conformity to its proper nature, is called the Regulative Faculty, Reason, or Common Sense. It is the co-ordinating power, by which harmony is maintained in the other faculties.

Will and Desire can only be manifested through the cognition —"*Ignoti nulla cupido.*" "Mere cognition is insufficient to determine the will, without the intermediate influence of the emotions." The will, moreover, is a deliberate, and desire a "blind and fatal tendency to act."—(HAMILTON.)

Whenever the control of the regulative faculty is lessened, and imagination is allowed to usurp the place of common sense, a predisposition is formed, both in society and in the individual, favorable for the production of specific disease, and death, through the agency of mental impressions. Ignorance is the most frequent cause of this loss of regulative power. Morbid sympathy, which is a modification of desire, "or a blind and fatal tendency to act," is the common result of this condition of mind.

Desire, then, as thus explained, I shall endeavor to establish as an acute mental neurotic poison. In illustration, I shall refer to the epidemics of the spasmodic dance of St. John, the convulsive dance of St. Vitus, particularly in Germany, and to the tetanic bacchanal of tarantism in Italy, during the middle ages, also to certain fanaticisms in more modern days.

Every country in Europe had been devastated during the middle ages by plagues and famines, in quick succession. Civilization was rude, and human life was lightly esteemed. Law, which bears the same relation to society as the *will* to the individual, was but little regarded. *Ignorance*, superstition and fear every where prevailed. The terrible plague strewed the highways with thousands of unsepulchred dead, whose loathsome terrors spread pestilential horror among perishing millions.

Ignorance ascribed the origin of the pestilence to the poisoning of the wells by the Jews, and *reason* yielded to a fearful *imagination*. Popular *passion* raged with malignant fury, and a "*blind desire*" for vengeance culminated in frightful deaths by fire and sword to thirty thousand Israelites.

Morbid sympathy originated the brotherhood of the Flagellants, who, in frenzied multitudes of thousands, made penitential pilgrimages all over Europe, scourging themselves with bloody zeal, and offering prayers for the averting of the plague.

This diffused morbid sympathy, developed into an imitative impulse, manifested itself as an acute mental cerebro-spinal poison in the extraordinary epidemic of the howling dance of St. John. Dr. Hecker says that, just after the subsidence of the Black Death in 1374, "assemblages of men and women were seen at Aix-la-Chapelle, who had come out of Germany, and who, united by one common delusion, exhibited to the public, both in the streets and in the churches, the following strange spectacle. They formed circles hand in hand, and appearing to have lost all control over their senses, continued dancing for hours in wild *delirium*, until they fell exhausted." Sometimes the attack commenced with *convulsions*, and those affected fell *senseless*, panting and laboring for breath, and then they, suddenly springing up, began to dance with strange contortions. At Metz the streets were crowded with 1100 shrieking dancers. "Peasants left their ploughs, mechanics their workshops, housewives their domestic duties, and children their parents"—having imbibed the *poison* of this mental infection, and joined in the corybantic carnival —*ignorantly* impelled by an "all conquering *imagination* to *imitate* what they had seen."

The dance of St. Vitus was of similar character, and depended upon that "disposition of mind, altogether so peculiar to the middle ages," and which has *partially* been counteracted in its poisonous influence by the antidotal diffusion of popular *knowledge* in modern times. It attacked rich and poor, strong and weak, indiscriminately. Multitudes would violently jump, roar, and dance with such fury and extravagance of action, that many *died* from the violence of the attack, while others were *paralyzed*, and suffered with a tormenting tympany.

One form of this Chorea Sancti Viti was called by Paracelsus—"Chorea Imaginativa"; and another, "Chorea Lasciva." He taught that it arose from *sensual desires* depending on the will. It is probable that it was aggravated by what Mr. Baker Brown would call "peripheral irritation of the pudic nerve." The theory of reflex excitability seems to have been understood, for Paracelsus recommended severe corporeal *chastisement* as the most efficient therapeutical agent. The treatment which was efficacious *then*, would not, unfortunately, receive commendation *now*, notwithstanding the vaunted diffusion of knowledge. A very similar kind of chorea lasciva, depending upon *like causes*, and epidemic *now* in the form of "*Black Crook*," is *treated* with popular *applause*, and lavish *remuneration*. Well might the medical and moral philosopher meet in consultation, to determine whether such poisoning were better combated by the cautery, "clitoridectomy," or by a more wisely ordered system of public education!

Tarantism was another bacchanalian epidemic, characterized by delirious shouting, laughing, singing, nausea, vomiting, and exstatic, untiring dancing. It was originally attributed to the actual poison of the tarantula, but precisely similar cerebro-spinal symptoms were produced by the mental neurotic poison of desire, developed into a morbid, sympathetic, imitative impulse. Dr. Murray states, that "bachelors, widows, widowers and old maids, are among the many victims of a gloomy solitude, which so often affects the mind as to implicate the body in disease."

In the fifteenth century there was a convent epidemic, which as it occurs in a modified nature *now*, is of some interest in illustration of the toxical dangers incident to the unwedded. "A nun in a German nunnery fell to biting all her companions, and shortly all the other nuns—being melancholy and hysterical—became mordacious, and began biting each other, until, spreading from convent to convent, the propensity was vigorously manifested in the convents of Rome." It is well to observe, in warning, that it *may* be a similar rabid "*vis a tergo*" which exhibits itself in vicious tendencies to back-biting in modern times. *Statesmen* even might profit by reflecting on this form of mental neurotic poisoning.

The manifestations of the pretended victims of witchcraft were characterized by the symptoms produced by acute cerebro-spinal poisons, and as *firing* was mercilessly employed as a remedy, we may suppose that our forefathers reposed confidence in the actual cautery. The Rev. Mr. Parris, who was a clergyman in Salem village in 1692—having consumed his vital energies in his *weekly* sermons—transmitted a diseased innervation to his child. Even as now such heinous crimes of hereditament are attributed to supernatural agencies, rather than to culpable violations of natural laws, and are dignified with all the sonorous titles of a frightfully ample nosology, so the reverend *poisoner* called the curse of his own entailment, witchcraft. It became contagious through morbid sympathy, and exhibited every variety of stupor, delirium, paralysis and convulsion. Dislocation of the jaws, through the violent trismus which supervened, was of frequent occurrence.

Those who have seen yelling, groaning, writhing, swooning, convulsed crowds of negroes in the *agony* of worship, will recognize the effect of an acute mental neurotic poison.

[To be concluded.]

CONTRIBUTIONS TO DERMATOLOGY.

(Continued from page 217.)

HAVING marked out and initiated a course of treatment, as far as practicable, for internal medicines, for food, cleanliness, salubrious air, clothing and whatever else may be deemed essential in the do-

mestic arrangements, the next point that should engage the consideration of the physician, is the local treatment. This is a matter, as all experience testifies, of much greater difficulty and embarrassment than the simple plan which is a leading feature in the constitutional measures.

In very many cases where our best efforts are put forth to render good service, we find that we have to do with a most capricious enemy; and that what appeared to be the plain indications of to-day, as to what should be done directly to the eruption, will be contra-indicated to-morrow. Whether we order cold water or warm water, a poultice, a dry powder, a liniment, a lotion, an embrocation, or an ointment, we but too often find that the result is contrary to expectation. All parties are disappointed; and the physician is not a little mortified at his defeat. Very likely that since the last professional visit some slight disturbing cause has been called into action, and thus prevented the anticipated benefit. The nursing mother may have committed some error in diet and induced a derangement of the digestive organs; or she may have had a slight feverish attack, or have been thrown into distress by some sudden calamity, or some abrupt change in the weather, as from heat to cold, from dry to wet, or the reverse. Either of these circumstances may serve as a disturbing cause, and for the time being render the patient worse. Other incidental causes, scarcely appreciable, may give a shock to the whole organism of the little sufferer, and its force be especially displayed upon the diseased skin. Every physician in active practice must have witnessed the things here spoken of.

A great variety of topical remedies are in vogue for the alleviation of the pruritus, with a view at the same time of arresting the further spread and continuance of the eruption; and as it appears more frequently on the head and face in young children than on any other region, we will first consider it on these localities. It is hardly worth while to attempt a description of all the preparations in general use in the local treatment of the disease, or to discuss their relative merits. Those only which are most reliable will be noticed, and the indications for their employment pointed out as far as may be.

If the eruption is on the hairy scalp, and incrustations are present, the first thing to be done is to remove them. When this is accomplished, we can obtain a fair view of the condition of the diseased integument, and not until then. There are several applications that have been favorites among medical men for getting the scalps free from these crusts. One of the most convenient and cleanly is the crystallized carbonate of soda. A solution of this salt, containing one drachm, to twelve ounces of water, should be applied to the crusts by means of soft linen rags, or, what is still better, surgeon's lint, or that used by dentists, over which a cap of thin

gutta percha or oiled silk should be secured so as to prevent evaporation. The lint should be thoroughly saturated and be renewed morning and evening, or oftener if need be, so that the parts may be kept constantly wet. If half an ounce of the liquor sodæ chlorinatæ be added to the above solution, it will be an improvement, as it will effectually prevent any unpleasant smell that would otherwise emanate from the eruption. It is well to keep on hand a supply of the chlorinated water, for it will be needed all through the treatment, and should be used about in the proportion just stated whenever the child is to be washed. It is a *sine qua non* that the lint should never be allowed to dry, otherwise the application will do no good.

In the present state of pathological knowledge, the explanation of the curative action of the carbonate of soda solution is hypothetical. But it is evident that it produces an immediate sedative effect upon the diseased surface. It acts of course primarily upon the nervous filaments of the parts. Perhaps it combines with and neutralizes some peculiar acid principle which enters into the composition of the acrid discharge. We have cured many severe cases of eczema in patients of all ages, with whom no topical means have been employed except a solution of carbonate of soda during the whole period of attack. This treatment originated with Bennett, of Edinburgh; and whenever the locality of the disease will allow of its use, we need not hesitate to apply it. On the face and about the ears, neck, and some other localities, it would be somewhat inconvenient to employ it on a young child, on account of the difficulty of keeping the dressings in place. The strength of the solution should be about one drachm to the pint of water, if no incrustrations are to be removed. Its therapeutic influence in allaying the pruritus and inflammation of the skin is very similar to that of the weak solution of potassa fusa (two or three grains to the ounce of water) recommended by Hebra, Anderson, &c.

The benzoated oxide of zinc ointment of Dr. Bell, is a mild astringent application, and is extremely well suited to certain places that are excoriated and highly inflamed, and on which lotions cannot be advantageously applied constantly, as the ears, the face, the nates, and the genital and anal regions. It may be used with a liberal hand, and be repeated two or three times in the course of the twenty-four hours. It should remain undisturbed, as a permanent covering to the parts for several days in succession. It can of course be used on any portion of integument; and it will generally alleviate the pruritus and lessen the morbid secretion in a satisfactory manner. If applied on the scalp, it may become matted down with the hairs if allowed to accumulate for several days; it will therefore be advisable partially to cleanse the hairs every third or fourth day with the carbonate of soda solution, warm, or with a lather made of white Windsor soap. When this is done, wipe the scalp perfectly dry and apply fresh ointment. The cleansing of the head should be done in

the most gentle manner, and with the least possible friction, and a soft linen rag used in the process. We have prescribed the benzoated oxide of zinc ointment in numerous cases in all stages of eczema, and for persons of all ages; and, in a majority of instances, with great relief and comfort to the patients.

In cases of purely local eczema occupying quite a limited portion of integument, as the ears, face, hands, axillæ, &c., and the ichorous discharge very copious, we have often employed with much satisfaction the following ointment. ℞. Plumbi carbonatis, ʒ ij.; cretæ præparatæ, ʒ ss.; unguenti rosæ, ʒ ij. M. Apply this ointment freely to the parts two or three times in the twenty-four hours. It rarely fails to ameliorate the intensity of all the symptoms. It may be prescribed without regard to the age of the patient.

After the incrustations have been removed, and the exposed surface is found to be much inflamed, the subjoined formula will prove valuable as a local application. It may be used with freedom. ℞. Pulveris camphoræ, ℈ iv.; pulveris zinci oxidi, ʒ j.; olei bergamotæ, gtt. xv.; glycerinæ, ʒ iv. M. Signa. Shake the mixture before using it. Our experience in the use of the three last mentioned local remedies has been about the same with each, and they have all seemed to promote convalescence about alike. Either of them is entitled to confidence when employed at the proper time; and we have pointed out the condition of things when the one or the other of them is indicated. In repeating the dressings with either, the nurse should be instructed not to remove any portion of what has been applied previously, but let it remain undisturbed for four or five days unless it becomes detached and is nearly cast off with the loosened incrustations.

When the disease is decidedly on the decline and there is more or less infiltration and thickening of the skin, a weak solution of the choride of zinc will usually act favorably. ℞. Zinci chloridi, ℈ ss.; aquæ fontanæ, ʒ iv. M. To be painted on the affected parts three or four times a day, with a soft rag attached to a stick.

As a constant application in the circumstances just specified above, we have often witnessed good results from the use of the liquor plumbi mixed with thick cream, in the proportion of one drachm of the former to four or five ounces of the latter. It allays the excessive itching and checks the remaining inflammatory tendency. It should be applied several times in the twenty-four hours on any portion of the skin of infants and other young children. It should be prepared fresh every day, especially in warm weather.

We have occasionally prescribed chloroform as a topical application, in the proportion of one drachm to an ounce of simple ointment. It often alleviates the distressing pruritus. This ointment should be put up in a phial with a wide mouth.

A mixture of equal parts of lime water and linseed oil is another local remedy of decided utility, where the surface has long been the

seat of the eruption. The preternatural redness, infiltration and excessive itching will frequently subside, when the diseased skin is protected by this well-known ointment.

We speak from experience.

[To be continued.]

LITHOTOMY IN BOSTON IN 1741.

[Communicated for the Boston Medical and Surgical Journal.]

I SEND you the report of a case of lithotomy, taken from the Boston Weekly News-Letter, November 13, 1741. It is interesting in a professional, as well as an antiquarian, point of view. The operator was Dr. Sylvester Gardiner, who studied his profession in France and England, and afterwards acquired great wealth as well as reputation in the practice of medicine in this city. At the beginning of the Revolution, his large estate was confiscated, as he was a tory refugee. After the war he returned to his native State of Rhode Island, when he died at Newport, of a malignant fever, August 8, 1786. SAMUEL A. GREEN.

Boston, April, 1867.

A Medical Society in Boston, New England, with no quackish view, as is the manner of some; but for the Comfort and Benefit of the unhappy and miserable Sufferers by the Excruciating Pain, occasioned by a Stone in the Bladder, do Publish the following Case.

In Boston, Octo. 8, 1741, Josiah Baker, Æt. 6, was cut for the Stone in the Bladder, according to Mr. Cheselden's late Improvement of the lateral Way, by Mr. Gardner of Boston (who had some Part of his Education in the Hospitals and Infirmaries of London and Paris) in Presence of the Medical Society and others without reserve.

This Boy by his Complaints seems to have had the Rudiments of this Stone from his Birth, and by degrees the Paroxsyms of Pain became so violent, that Death or the operation were unavoidable. This Stone was extracted in the lateral method without Distraction or Dylaceration of the Parts, which too frequently kill the Patients in a few Days or Weeks; or if the patient escapes with his Life, the Urine continues to issue involuntarily by the Wound, during an uncomfortable Life. Several such miserable Instances we have had in this Province for want of Skill and Discretion in the Operator.

This Stone when extracted was of a lenticular Form, somewhat elongated, imitating the converging Part of the Bladder, its surface *instar Lapidis arenosi*, but more hard and compact, the Circumference 4.75 Inches; its central Thickness 8.5 [.85?] Inches; the longest Diameter 1.5 Inch; the shortest Diameter 1.25 Inch.

The Dressings were soft easy and simple, with a milk Diet to mitigate the scalding of the water in the Wound; The 4th Day the Urine began to trickle the natural Way; the 11th Day it passed the

natural Way in a full strong Stream; 15th Day no more Urine by the Wound; and makes Water only 3 or 4 times in 24 Hours; after the 23d Day, no more Dressing, the Wound being well cicatrized and the Boy at Play about the House.

Thus in about 3 weeks a compleat and easy Cure for the Stone in the Bladder, was affected by the lateral Way.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 25, 1867.

ANNUAL REPORT OF THE CITY PHYSICIAN.

The Annual Report of the City Physician for the year ending with the 1st instant is a bulky document, and contains much matter of general and professional interest. The subject of smallpox, at the present moment a pretty serious one among us, leads him to call the attention of the City Government to the neglect of vaccination which still prevails here as everywhere else unless corrected by public law. It appears that there are, on the average, about 3000 persons found in the city every year who have not been vaccinated. These furnish food for the disease, which every few years prevails in the form of a limited epidemic, as it does at the present time. The City Physician is strongly disposed to question the wisdom of the legislative action by which, in 1836, the statutes requiring the removal of persons sick with the smallpox were repealed. He shows that, while, previous to the repeal of these statutes, there was no death from this disease here for many years, since that time there has been but one year without a death; and in twenty-one of the thirty years since, there have been *each year* more deaths from this disease than occurred during the whole twenty-five years before. This is a startling statement certainly, and may well arrest the serious attention of the Board of Health.

With the exception of the first six pages, however, Dr. Read's report is exclusively devoted to the subject of cholera, and contains much matter to make it worthy of careful and thoughtful examination. Commencing with a detailed report of all the cases of this disease which were collected by a Committee of the Suffolk District Medical Society, and some of which have been published in this Journal, he gives copious extracts from the highest authorities of the present day, as to the contagious nature of this disease, such as Dr. Jenner, President of the Epidemiological Society of England, and Professor Goodeve, one of the English Commissioners to the International Sanitary Conference. He also refers to the very close resemblance between Asiatic cholera and a form of cholera morbus, the only distinguishable characteristic being that the former disease is communicable and the latter is not. In this connection, he quotes the recent experiments of MM. Legros and Goujon made at the Histological Laboratory of the School of Medicine at Paris, under the direction of M. Robin, by which it was demonstrated that not only the serum, the blood and the dejections of cholera patients, when injected into the veins, the trachea, or the cellular tissue of

animals, produced all the symptoms of cholera, but that the same results followed the injection of a liquid obtained by condensing the vapor of the air in the cholera wards of some of the Parisian Hospitals. The same result followed the injection of *diastase*, a fact which throws much light on the origin of cholera morbus.

In view of the great weight of authority in favor of the doctrine of the communicability of cholera, as well as his own decided convictions, the City Physician urges in the strongest manner upon the City Government the importance and the duty of employing the most stringent measures of quarantine to prevent its introduction into this country; being fully impressed with the belief that, if these are generally adopted, owing to the peculiarly favorable position in which we are placed on this side of the Atlantic, in the words of Dr. Marsden, "Asiatic cholera will become an unknown disease to future generations on this continent." A copy of Dr. Marsden's well-known plan for a quarantine station closes the first part of this report.

The second part, or appendix, contains a translation of the whole of the report of the Commission of the International Sanitary Conference on the questions of the origin, epidemicity, transmissibility and propagation of cholera, by the senior Editor of this JOURNAL. Our readers will remember that early in August last, quite in advance of any other medical journal in the world, we believe, we were enabled to give them an abstract of this very important report. The translation was completed at that time, but we could only find room for the abstract which we published. From the reception which the abstract met with, we are satisfied that we did not overestimate the importance of this document. Through the liberality of our City Government Dr. Read has been enabled to publish the whole translation, which we had placed at his disposal. It is a paper of one hundred pages, and we think no one can read it without feeling that the Commission have done much to throw light on some of the doubtful questions discussed. The general character of the document is apparent from the abstract, but the arguments on which it is based are, in our opinion, of great weight. They fully sustain the City Physician in the position which he has taken in relation to Asiatic cholera, as a municipal officer.

Importance of Revaccination.—At the present time, when there is an unusual prevalence of smallpox in Boston, the question is frequently asked of physicians, is revaccination necessary? Particularly important does this inquiry become when a case occurs in the midst of a numerous household. An incident related to us by a professional friend a few days since shows how necessary under such circumstances the precautionary measure of revaccination becomes. Several years since a patient of this gentleman, living in a large boarding-house occupied by between forty and fifty boarders, was taken ill with smallpox. By his advice all the boarders but two, who refused to submit to the operation, were revaccinated. There were only two secondary cases of variolous disease in this large household, occurring in the persons of the two individuals who declined revaccination, both of whom had varioloid. During the present season, we have known a succession of half a dozen cases of variolous disease to occur in one house; showing either great neglect on the part of the physician in attendance on the first case, or the most stupid unwillingness on the part of those subsequently attacked o protect themselves by revaccination.

Vomiting of Pregnancy.—In a recent discussion on the Sickness of Pregnant Women, published in the *Union Médicale*, M. Gros reported a case in which this symptom had continued for a long time, reducing the patient to extreme emaciation. He administered pepsine in the dose of fifty centigrammes (about eight grains) before each meal, with complete relief. Many other remedies had been previously tried without the least benefit.

The efficacy of this remedy in these cases was substantiated by Drs. Duhomme, Piogey and Labbé. It was remarked that the action of this remedy is somewhat uncertain, owing to its liability to change. It should not be administered in too hot a vehicle, as a high temperature destroys its efficacy. Another objection to its common use is its great price.

Dr. Dufour said that in many cases he had found chlorohydric acid an equally efficient remedy, and not liable to the objections which exist against pepsine; he had found it to be almost equally successful in these cases.

Weak Eyes and fine Print.—An non-professional correspondent calls our attention to the increase of near-sightedness and other difficulties of the eyes at the present day, owing, as he believes, to the reading of too fine type in books; and wishes us to utter a word of warning against this growing evil. He also complains of much of the print in newspapers as very trying to the eyes. Whether the evil of which he complains is mainly due to the cause to which he ascribes it or not, it is certain that it may be greatly aggravated by it. This opinion has long been held by the medical profession, but men in general seem to care more for the pound of cure than the ounce of prevention, in this as in everything else. We can only say that it grieves us to see (we never read them), and to see universally applauded in the daily press, the multiplying *diamond* editions of popular authors. Their publishers surely cannot realize what an injury they may inflict upon the eyes of their readers. It is poor economy to buy a book at half price printed in type so small as not to be read without such a risk.

Chloroform or Ether?—In an article in the *Union Médicale* on Anæsthesia, M. Forget sets forth in decided language the great superiority of the latter as an anæsthetic. He quotes the following conclusions, which he published in 1853:—

1st. Pure chloroform, carefully administered, may cause death.

2d. Death does not occur always under the same conditions. When sudden and instantaneous, it seems to be produced by sudden impression on the nervous system; when it occurs more gradually, it is accompanied by symptoms which have a resemblance to those of asphyxia.

3d. In the actual state of our knowledge, art has no infallible means of averting the fatal accidents which may follow the inhalation of chloroform.

4th. This certainty of our inability to control the action of chloroform ought to lead to its abandonment in the practice of surgery, and the substitution of ether as much less dangerous.

5th.—The reasons urged in behalf of chloroform by its partizans disappear before a careful examination. The advantages attributed to it, especially the promptness of its action and the progressive energy of its effects, constitute, in fact, the principal inconvenience and danger from its use.

Guided by these conclusions, the author says that he has always used ether as an anæsthetic, except on one occasion, when circumstances compelled him to em-

ploy chloroform, and in this case his patient narrowly escaped death. Among those who formerly were avowed partizans of chloroform, but have renounced it for ether, he mentions Professor Gosselin, "who, for some years, has used ether exclusively in the surgical service of *La Pitié*."

New Method of treating Phymosis.—Dr. Elliot Coues, Assistant Surgeon U.S.A., describes, in the *Medical and Surgical Reporter*, a new and ingenious method of overcoming phymosis, by which a cutting operation is avoided; an improvement of much value in cases complicated with syphilis, where the edges of the incision, as ordinarily practised, are so apt to take on the specific disease. From his history of a case we take the following extract:—

"Fully aware of the probable unpleasant consequences of cutting, and seeking some other *modus operandi*, the idea of overcoming the constriction by mechanical dilatation struck me as offering a reasonable hope of success. Acting upon the suggestion, I introduced within the constricting ring the closed points of an ordinary spring forceps. A few minutes' manipulation produced a sensible enlargement of the stricture, encouraged by which I left the instrument *in situ*, where it was retained by the resiliency of the blades, which was also to be a continuous operative force. The patient was directed to occasionally employ a moderate degree of manual force, by pulling the blades apart, and to assiduously foment the parts with warm water. The procedure produced no pain nor other inconvenience. *In three hours* the glans could be exposed; shortly afterwards the whole glans popped out of its awkward hood, and the prepuce was fully retracted. The success of the experiment was as evident as the necessity for it. Two ulcers were disclosed—one on the dorsum of the glans as large as a dime piece, irregularly circular, excavated, covered with a tough gray slough, and rapidly extending, as the painful, deep livid, ragged edges testified; the other, on the prepuce just back of the corona, of the same general character as the first, but smaller, resembling a split pea in size and shape. These ulcers had been three days only in changing from the appearances they presented when first seen, as already detailed. A relapse of the phymosis was prevented by occasional recourse to the forceps, and the ulcers readily healed under appropriate treatment. * * * * * * * *

"Taking a hint from the forceps, I have devised a simple little instrument by which any desired degree of dilating force may be employed, and graduated to a nicety. It is merely a pair of callipers, about three inches long, probe pointed, the two blades flat, bevelled on their outer edges, and divaricating from each other by means of a screw placed near their hinge, running through one blade and abutting against the other."

Female Medical Students and Practitioners.—The application of two ladies for admission as students of medicine in Harvard Medical School has been refused by the Corporation of Harvard University, on the ground that there is no provision made in the charter of the Institution for female students.

The Philadelphia County Medical Society recently held a protracted discussion, at two successive meetings, with regard to the relations which should exist between the members of that Society and female physicians in Philadelphia, and in conclusion adopted unanimously the following resolution:—

Resolved, That, in conformity with what they believe to be due to the profession, the community in general and the female portion of it in particular, the members of this Society cannot offer any encouragement to women becoming practitioners of medicine, nor, on these grounds, can they consent to meet in consultation such practitioners.

Extraordinary Power of Endurance.—The *Pacific Medical and Surgical Journal* tells a most extraordinary story of the power of endurance of a Mr. J. D. Gardner, of San Francisco. With a companion he was riding in Almeda County in a carriage drawn by two horses, and at nine o'clock in the evening they were precipitated down a ravine more than twenty feet in depth. Mr. Gardner's left thigh was broken at the upper third, and the carriage was resting upon him; his companion lay insensible by his side. He succeeded in lifting the wheel and disengaging himself. They were in a lonely spot, and no one came to their relief. The injured man lay all night, all the next day and the next night, exposed to a broiling sun by day and the glare of a full moon at night. On the second day—

"Losing all hope of relief without a desperate effort, he climbed the side of the ravine opposite to that on which he had fallen, and which was less precipitous. This he accomplished on his back, lifting his body with his hands and elbows and pushing it onward by means of the heel of the sound limb, dragging the broken one along after the body. Having climbed the bank, he saw the roof a house nearly a mile distant, and set off for it in the same tardy and painful mode of locomotion. All that day and night, and the following day and night, were thus spent.

"On Sunday morning he came to a fence, which he found built of posts planted in the ground close together, with a horizontal string piece near the top to which the posts were nailed. This was seemingly an insuperable obstacle to his further progress, and abandoning all hope, he resigned himself to death. But the sight of a small squash through the fence inspired him to renewed effort, and recollecting that he had passed a loose fence-rail a short distance back, he returned to it and managed to drag it to the fence, and with it to pry off the string piece from some of the posts. Then reaching backwards over his head, still lying on his back, he seized one of the posts, and after much labor loosened it from the earth and lifted it out, so as to leave an opening through which he dragged himself into the garden.

"He was now within a hundred yards of the house, but his voice was too faint to be heard at that distance. The squash was, however, accessible, and when he had brought it almost within his grasp, he was observed by some persons who chanced to be walking through the garden, and who came to his relief.

"It was now noon, on Sunday. Since noon of Wednesday, a space of four days, he had not swallowed a morsel of food or drink; and fifty-four hours of that time he had spent in dragging himself as described, from the ravine to the garden, a distance of nearly a mile. He thinks he did not sleep a moment, from the accident until after the rescue; but in this he was doubtless mistaken. The ground over which he travelled was rough, and in places stony. The foot of the broken limb often became wedged in the stones, when he was compelled to stop and turn in various directions before getting it extricated. * * * * *

"When he was rescued, his first want was a drink of water, and when this was brought, he restricted himself with great self-control to two glasses. At the same time, however, he sent relief to his comrade, who was found still alive, but senseless, and who died the following night. Gardner refused to taste of brandy which was offered him, and he partook of food sparingly, exercising in every respect a judgment which a professional adviser could not have improved on.

"Being carried to the farm-house, he was placed under surgical care. Not a single unpleasant symptom supervened to interfere with the curative process. He took no stimulating liquors in any form. In seven weeks he was well enough to return to the city, and to drive the vehicle which carried him. His health since has been uniformly perfect, and he bears no trace of the injury except some lameness from shortening of the limb.

"Mr. Gardner is of medium stature and spare figure, with full bony development, and a general appearance of sturdy and rugged constitution. He is unmarried. At the time of the injury he was 25 years of age. His habits have always been regular and excellent, except in regard to tobacco, in which he has indulged pretty freely from his boyhood. On the night of his fall, about two

o'clock, he recollected having a cigar in his pocket, and he now dwells with enthusiasm on the pleasure he enjoyed whilst lying on his back in the moonlight and puffing that solitary cigar. He had also a package of tobacco in his pocket, but fearing that he might get so hungry as to swallow it and injure himself, he threw it away, beyond his reach. During his confinement to bed, he smoked daily more or less, and he refers with some feeling to the comfort derived from this source."

At the annual meeting of the Suffolk District Medical Society the following gentlemen were elected officers for the ensuing year.

President, Dr. H. I. Bowditch. *V. President*, Dr. J. Ayer. *Secretary*, Dr. C. W. Swan. *Treasurer*, Dr. J. N. Borland. *Librarian*, Dr. B. J. Jeffries. *Supervisors*, Drs. G. H. Gay, Dr. S. Greene. *Commissioner on Trials*, Dr. S. Durkee. *Councillors*, Drs. J. Bigelow, S. Morrill, J. Jeffries, D. H. Storer, J. Flint, J. B. S. Jackson, J. Homans, A. A. Watson, E. Palmer, C. G. Putnam, H. I. Bowditch, H. G. Clark, J. M. Warren, G. C. Shattuck, C. E. Ware, S. L. Abbot, S. Cabot, G. Hayward, W. W. Morland, H. J. Bigelow, C. E. Buckingham, B. Brown, J. Ayer, F. Minot, J. B. Upham, G. H. Gay, H. W. Williams, C. Ellis, C. D. Homans, A. B. Hall, W. G. Wheeler *(Chelsea)*, J. B. Forsyth *(Chelsea)*, P. M. Crane *(E. Boston)*, Geo. S. Jones, R. M. Hodges, Geo. H. Lyman. *Delegates to the American Medical Association.* J. Bigelow, C. F. Buckingham, D. McB. Thaxter, A. B. Hall, J. S. H. Fogg, Geo. Derby, G. Hay, O. W. Holmes, R. M. Hodges, G. S. Hyde, J. S. Jones, Chas. Mifflin, H. K. Oliver, G. H. Nichols, A. Poole *(Chelsea)*, J. P. Reynolds, J. F. Jarvis, D. D. Slade, W. H. Thorndike *(E. Boston)*, D. H. Storer, B. S. Shaw, J. C. White, C. A. Walker.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 20th, 1867.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	48	24	72
Ave. mortality of corresponding weeks for ten years, 1856—1866	42.3	38.8	81.1
Average corrected to increased population - - - - -	00	00	88.31
Deaths of persons above 90 - - - - - - - -	0	0	0

COMMUNICATIONS RECEIVED.—A case of Pneumonia. By James C. Ayer, M.D.—The Communication entitled "Vitality—Virility," is inadmissible.

PAMPHLETS RECEIVED.—Notes on Fractures of the Upper Extremity. By John H. Packard, M.D., one of the Surgeons of the Episcopal Hospital of Philadelphia.—The Intracranial Circulation: an Essay to which was awarded the first Prize of the Boylston Medical Society in 1867. By Thomas Dwight, Jr., House-Surgeon of the Massachusetts General Hospital.—Biographical Memoir of Franklin Bache, M.D., prepared at the request of the College of Physicians of Philadelphia. By George B. Wood, M.D.—Proceedings of the Massachusetts College of Pharmacy, containing the Report of the Committee on the "Law for the sale of Spirituous Liquors as applied to Apothecaries," and the Petition to the Senate and House of Representatives of Massachusetts, together with the Memorial, Evidence and Argument presented to the "Joint Committee on Licenses of the Senate and House."

DIED,—In New York, April 20th, Dr. Alexander McDonald, of South Boston, formerly Chief Inspector of the U. S. Sanitary Commission, Army of the Potomac, aged 36 years 4 months. He was on his way home from Havana, whither he had gone in hopes of being benefited by the change of climate.

DEATHS IN BOSTON for the week ending Saturday noon, April 20th, 72. Males, 48—Females, 24. Accident, 3—anæmia, 1—inflammation of the bowels, 2—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 4—cancer, 1—consumption, 12—croup, 2—cyanosis, 1—diphtheria, 2—dropsy, 2—dropsy of the brain, 3—dysentery, 1—scarlet fever, 3—typhoid fever, 2—hæmorrhage, 1—disease of the heart, 1—hernia, 1—infantile disease, 1—disease of the kidneys, 2—lead disease, 1—inflammation of the lungs, 4—marasmus, 3—measles, 1—necrosis, 1—premature birth, 1—scrofula, 1—sore throat, 1—smallpox, 5—tumor, 1—unknown, 3—whooping cough, 2.

Under 5 years of age, 26—between 5 and 20 years, 10—between 20 and 40 years, 14—between 40 and 60 years, 16—above 60 years, 6. Born in the United States, 51—Ireland, 15—other places, 6.